

double bond is an ester of an unsaturated carboxylic acid with an aliphatic polyhydric alcohol compound.

9. The plate-making method of a lithographic printing plate as claimed in Claim 1, wherein an amount of the compound having a nitrogen atom and an ethylenically unsaturated double bond is from 5 to 80% by weight of the whole composition of the photosensitive layer.

10. The plate-making method of a lithographic printing plate as claimed in Claim 1, wherein the photopolymerization initiator comprises a titanocene compound.

11. The plate-making method of a lithographic printing plate as claimed in Claim 1, wherein an amount of the photopolymerization initiator is from 0.05 to 100 parts by weight per 100 parts by weight of the compound having a nitrogen atom and an ethylenically unsaturated double bond.

12. The plate-making method of a lithographic printing plate as claimed in Claim 1, wherein the polymer binder is an organic polymer soluble or swellable in an aqueous alkali solution.

13. The plate-making method of a lithographic printing plate as claimed in Claim 1, wherein the polymer binder is an addition polymer having a carboxylic acid group in the side chain.

14. The plate-making method of a lithographic printing plate as claimed in Claim 1, wherein the polymer binder is a cellulose derivative having a carboxylic acid group in the side chain.

15. The plate-making method of a lithographic printing plate as claimed in Claim 1, wherein the polymer binder has a weight average molecular weight of from 5,000 to 300,000 and an acid value of from 20 to 200.

16. The plate-making method of a lithographic printing plate as claimed in Claim 1, wherein an amount of the polymer binder is from 10 to 90% by weight of the whole composition of the photosensitive layer.

17. The plate-making method of a lithographic printing plate as claimed in Claim 1, wherein the photosensitive layer further comprises a surface active agent.

18. The plate-making method of a lithographic printing plate as claimed in Claim 1, wherein the photosensitive layer further comprises a coloring agent.

19. The plate-making method of a lithographic printing plate as claimed in Claim 1, wherein the aluminum support comprises an aluminum or aluminum alloy plate the surface of which is subjected to graining treatment and anodizing treatment.

20. The plate-making method of a lithographic printing plate as claimed in Claim 1, wherein the developing solution has a pH in a range of from 10.0 to 12.5 and an electric conductivity in a range of from 5 to 20 mS/cm.